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(FILE 'HOME' ENTERED AT 15:25:55 ON 30 AUG 2002)

INDEX 'ADISALERTS, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 15:26:41 ON 30 AUG 2002

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              320   FILE WPIDS
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     FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE, SCISEARCH, BIOTECHNO' ENTERED AT
     15:28:14 ON 30 AUG 2002
L2           379 S L1 (S) RHODOCOCCUS
L3            71 S L2 AND (ENANTIOSELECTIVE OR OPTICALLY ACTIVE)
L4            55 S L3 AND PY>1996
L5            20 DUP REM L4 (35 DUPLICATES REMOVED)
L6            11 S L3 AND PY<1996
L7             9 DUP REM L6 (2 DUPLICATES REMOVED)
L8            62 S L1 AND KLEBSIELLA
L9             5 S L8 AND (ENANTIOSELECTIVE OR OPTICALLY ACTIVE)
L10            5 DUP REM L9 (0 DUPLICATES REMOVED)
L11            2 S L9 AND PY<1996
L12            8 S L8 AND PROPIONAMIDE
L13            3 DUP REM L12 (5 DUPLICATES REMOVED)

=> d l13 ibib ab 1-3


L13  ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         1998:66005  CAPLUS
DOCUMENT NUMBER:          128:153206
TITLE:                    Manufacture of (S)- or
(R)-3,3,3-trifluoro-2-hydroxy-2-
                           methylpropionic acid from propionamides
                          with amidohydrolase synthesizing microorganisms
INVENTOR(S):              Brieden, Walter; Naughton, Andrew; Robins, Karen;
                          Shaw, Nicholas; Tinschert, Andreas; Zimmermann,
                          Thomas; et al.
PATENT ASSIGNEE(S):       Lonza A.-G., Switz.; Brieden, Walter; Naughton,
                          Andrew; Robins, Karen; Shaw, Nicholas
SOURCE:                   PCT Int. Appl., 68 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 German
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.          KIND  DATE           APPLICATION NO.   DATE
     ----------------    ----  --------       ----------------  --------
     WO 9801568          A2    19980115       WO 1997-EP3670    19970710
     WO 9801568          A3    19980219
         W:  AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ,
             LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL,
             PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US,
             UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,
             GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,
             GN, ML, MR, NE, SN, TD, TG
     CA 2259954          AA    19980115       CA 1997-2259954   19970710
     AU 9741137          A1    19980202       AU 1997-41137     19970710
     EP 938584           A2    19990901       EP 1997-938817    19970710
         R:  AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, PT, IE, FI
     JP 2000513942       T2    20001024       JP 1998-504811    19970710
PRIORITY APPLN. INFO.:                    CH 1996-1723      A   19960710
                                          CH 1997-500       A   19970303
                                          WO 1997-EP3670    W   19970710
AB   New microorganisms capable of using racemic or optically active
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3,3,3-trifluoro-2-hydroxy-2- methylpropionamide (2,2-HTFMPA)as sole source
of nitrogen are described for use in the manuf. of (S) - or (R)-3,3,3-trifluoro-2-hydroxy-2-methylpropionic acid from the trifluoroacetoacetic ester. The microorganisms have a new **amidase** that can catalyze the hydrolysis of the amide. The first three process steps are chem., the fourth process step microbiol. Microorganisms from the genera **Klebsiella**, Rhodococcus, Arthrobacter, Bacillus, and Pseudomonas were identified as useful in the process by screening for racemic 2,2-HTFMPA utilization. Utilizers were then screened for stereospecificity of utilization. The S-amidohydrolase gene (sad) of **Klebsiella** oxytoca was cloned by screening with amino acid sequence-derived probes.

L13 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:367395 CAPLUS
DOCUMENT NUMBER: 122:259498
TITLE: Studies on mechanism of bio-undegradable compounds metabolism
AUTHOR(S): Kobayashi, Michihiko
CORPORATE SOURCE: Fac. Agric., Kyoto Univ., Kyoto, 606, Japan
SOURCE: Asahi Garasu Zaidan Josei Kenkyu Seika Hokoku (1994) 235-42
CODEN: AGSHEN; ISSN: 0919-9179
PUBLISHER: Asahi Garasu Zaidan
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We cloned and sequenced the gene for Rhodococcus rhodochrous K 22 nitrilase, which acts on aliph. nitriles such as acrylonitrile, crotononitrile and glutaronitrile. The DNA clone contg. the nitrilase gene expressed the active enzyme in Escherichia coli with excellent yield,
leading to the establishment of a simple purifn. of the nitrilase. The nucleotide sequence of the nitrilase gene predicts a protein composed of 383 amino acids (Mr = 42,275), including only one cysteine. The amino acid sequence homol. between the Rhodococcus nitrilase and the **Klebsiella** ozaenae bromoxynil nitrilase was 38.3% and a unique cysteinyl residue (Cys-170) in the former nitrilase was conserved at the corresponding position in the latter nitrilase. The Cys-170 to Ala or Ser
mutations resulted in complete loss of nitrilase activity, clearly indicating that this cysteinyl residue is crucial for the activity. On the other hand, we also cloned and sequenced an **amidase** gene coupled with the low-mol.-mass nitrile hydratase (L-NHase) gene from Rhodococcus rhodochrous J 1. The **amidase** gene is present 1.9 kb downstream of the .beta. and .alpha. subunit genes of L-NHase. The nucleotide detd. sequence indicated that the amindase consists of 515 amino acids (Mr = 54,626) and the deduced amino acid sequence of the **amidase** had high similarity to those of various **amidases**
. The **amidase** gene modified in the nucleotide sequence upstream from its start codon expressed 8% of the total sol. protein in E. coli. The **amidase** was homogeneously purified from exts. of the E. coli transformant. The relative mol. mass of the enzyme was about 110 kDa, and
the enzyme acted upon aliph. amides such as **propionamide** and also upon arom. amides such as benzamide. The enzyme was highly specific for the S-enantiomer of 2-phenylpropionamide, but could not recognize the configuration of 2-chloropropionamide. The **amidase** also catalyzed the transfer of an acyl group from an amide to hydroxylamine to produce the corresponding hydroxamate.

L13 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1
ACCESSION NUMBER: 1991:579099 CAPLUS
DOCUMENT NUMBER: 115:179099
TITLE: Metabolism of acrylonitrile by **Klebsiella** pneumoniae

AUTHOR(S): Nawaz, Mohamed S.; Franklin, Wirt; Campbell, Warren L.; Heinze, Thomas M.; Cerniglia, Carl E.
CORPORATE SOURCE: Natl. Cent. Toxicol. Res., Food and Drug Adm., Jefferson, AR, 72079, USA
SOURCE: Arch. Microbiol. (1991), 156(3), 231-8
CODEN: AMICCW; ISSN: 0302-8933
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A gram-neg. rod-shaped bacterium capable of utilizing acrylonitrile as the sole source of N was isolated from industrial sewage and identified as K. pneumoniae. The isolate was capable of utilizing aliph. nitriles contg. 1-5 C atoms or benzonitrile as the sole source of N and either acetamide or **propionamide** as the sole source of both C and N. Gas chromatog. and mass spectral analyses of culture filtrates indicated that K. pneumoniae was capable of hydrolyzing 6.15 mmol of acrylonitrile to 5.15 mmol of acrylamide within 24 h. The acrylamide was hydrolyzed to 1.0 mmol of acrylic acid within 72 h. Another metabolite of acrylonitrile metab. was ammonia, which reached a max. concn. of 3.69 mM within 48 h. Nitrile hydratase and **amidase**, the two hydrolytic enzymes responsible for the sequential metab. of nitrile compds., were induced by acrylonitrile. The optimum temp. for nitrile hydratase activity was 55.degree. and that for **amidase** was 40.degree.; both enzymes had pH optima of 8.0.

=> d l11 ibib ab 1-2

L11 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:99986 CAPLUS
DOCUMENT NUMBER: 114:99986
TITLE: Amino acid amide racemase for preparation of **optically active** amino acids
INVENTOR(S): Hermes, Hubertus Franciscus Maria; Peeters, Wijnand Peter Helena; Peters, Peter Josephus Hubertus
PATENT ASSIGNEE(S): Stamicarbon B. V., Neth.; Novo-Nordisk A/S
SOURCE: Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 383403	A1	19900822	EP 1990-200335	19900214 <--

R: BE, CH, DE, DK, ES, FR, GB, IT, LI, NL
PRIORITY APPLN. INFO.: EP 1989-200380 19890216
OTHER SOURCE(S): MARPAT 114:99986
AB Amino acid amide racemase (I) activity is obsd. in Enterobacteriaceae such as **Klebsiella**. When used with an **enantioselective amidase**, I is useful in the prepn. of **optically active** amino acids from the amides (markush structure given). K. oxytoca NCIP 40113 was grown for 18 h in culture medium contg. salts, and yeast ext. with or without the addn. of D-phenylglycine amide (II); the cells were harvested by centrifugation, and incubated with D-valine amide for 17 h at 30.degree. with agitation. In the presence of II, L and D-valine were produced; in the absence of II, only L-valine was produced.

L11 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:457502 CAPLUS
DOCUMENT NUMBER: 113:57502
TITLE: Microbial and enzymic manufacture of **optically active** secondary alcohols and halohydrins
INVENTOR(S): Murakami, Nobuo; Hara, Shigeki
PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01257484	A2	19891013	JP 1988-113588	19880512 <--

PRIORITY APPLN. INFO.: JP 1987-313997 19871214
OTHER SOURCE(S): MARPAT 113:57502
AB Prepns. of **optically active** secondary alcs. and halohydrins with a variety of microorganisms or enzymes from corresponding esters via asym. hydrolysis are desclribed. Freshly harvested Brevibacterium flavum was suspended in a 1/15 M phosphate-buffered soln.

(OD660 = 5) and aerobically incubated with an ester, e.g. octyl acetate at 30.degree. for 1 h to obtain (R)-(-1)-2-octanol (ester conversion rate 30%; optical purity 94 %ee).

L7 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:208737 CAPLUS
DOCUMENT NUMBER: 124:282729
TITLE: Purification and characterization of an enantio-selective **amidase** from **Rhodococcus** erythropolis MP50.
AUTHOR(S): Hirrlinger, Beate; Stolz, Andreas; Knackmuss, Hans-Joachim
CORPORATE SOURCE: Institut fur Mikrobiologie, Universitat Stuttgart, Stuttgart, D-70569, Germany
SOURCE: Biochemical Engineering 3, International Symposium on Biochemical Engineering, 3rd, Stuttgart, Mar. 6-8, 1995 (**1995**), 43-5. Editor(s): Schmid, Rolf D. Universitaet Stuttgart, Institut fuer Technische Biochemie: Stuttgart, Germany.
CODEN: 62OTAD
DOCUMENT TYPE: Conference
LANGUAGE: English
AB An **enantioselective amidase** from **Rhodococcus** erythropolis MP50 was purified to homogeneity. Its native mol. mass was detd. as 500 kDa and it consisted of eight identical subunits. The N-terminal amino acid sequence was detd. The apparent Km values for racemic ketoprofen amide [(R,S)-2-(3'-benzoylphenyl)propionamide] and phenylacetamide were 0.067 mM and 0.069 mM, resp. The purified enzyme converted a wide range of aliph. and arom. amides. The amidase was able to form (S)-naproxen [(S)-2-(6-methoxy-2-naphthyl)propionic acid], (S)-ketoprofen [(S)-2-(3'-benzoylphenyl)propionic acid] and (S)-2-phenylpropionic acid from the corresponding racemic amides. The enantiomeric excesses were .gtoreq. 99% up to 49% conversion of the substrates. The specific activities were 7.0 U/mg with naproxen amide, 1.1 U/mg with ketoprofen amide and 4.5 U/mg with 2-phenylpropionamide.

L7 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1
ACCESSION NUMBER: 1995:207089 CAPLUS
DOCUMENT NUMBER: 122:80818
TITLE: Enzyme catalyzed reactions. 18. Enzyme-catalyzed **enantioselective** hydrolysis of racemic naproxen nitrile
AUTHOR(S): Effenberger, Franz; Bohme, Joachim
CORPORATE SOURCE: Inst. Organische Chem. Univ. Stuttgart, Stuttgart, D-70569, Germany
SOURCE: Bioorganic & Medicinal Chemistry (**1994**), 2(7), 715-21
CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The bacterial strain **Rhodococcus** butanica (ATCC 21197), which exhibits nitrilase and nitrile hydratase/**amidase** activities, catalyzes the **enantioselective** hydrolysis of racemic naproxen nitrile to furnish a moderate enantiomeric excess of (S)-naproxen. Racemic naproxen amide is not a good substrate for this strain. Resting cells of the newly selected bacterial strain Rhodococcus sp. C3II catalyze the **enantioselective** hydrolyses of racemic naproxen nitrile and racemic naproxen amide as well, to give (S)-naproxen in excellent optical (99% e.e.) and good chem. yields in aq. medium and in the biphasic system of phosphate buffer/hexane.

L7 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:265510 CAPLUS
DOCUMENT NUMBER: 120:265510
TITLE: Asymmetric hydrolysis of RS-2-methylbutyronitrile by Rhodococcus rhodochrous NCIMB 11216
AUTHOR(S): Gradley, Michelle L.; Deverson, Clive J. F.; Knowles, Christopher J.
CORPORATE SOURCE: Biol. Lab., Univ. Kent, Canterbury/Kent, CT2 7NJ, UK
SOURCE: Arch. Microbiol. (**1994**), 161(3), 246-51
CODEN: AMICCW; ISSN: 0302-8933
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Whole cells and cell-free exts. derived from Rhodococcus rhodochrous NCIMB 11216 were shown to hydrolyze both aliph. and arom. nitriles, when the organism had been grown on either propionitrile or benzonitrile as the source of carbon and nitrogen. Whole cell suspensions and cell-free exts. derived from bacteria grown on either substrate were able to biotransform R-(-),S-(+)-2-methylbutyronitrile. The S-(+) enantiomer was biotransformed more rapidly than the the R-(-) enantiomer. For whole cell biotransformations at 30.degree., the max. enantiomeric excess (ee) of the remaining R-(-)-2-methylbutyronitrile was 93% when 70% of the R-(-) enantiomer had been converted to the product, 2-methylbutyric acid. For the corresponding biotransformation at 4.degree., there was an ee of 93% for the residual R-(-) enantiomer of the substrate when only 60% of it had been converted to product. For biotransformations by cell-free exts. at 30.degree., the 2-methylbutyric acid product had an ee of 17% for the S-(+) enantiomer at the time of optimal ee for the remaining R-(-) enantiomer of the substrate. In contrast, when the reaction was carried out by whole cells, the ee for the product acid was 0.36%. This was probably due to further, non-selective metab. of the acid, which was esp. significant at the beginning of the reaction. At both temps., the ee for the S-(+) enantiomer of 2-methylbutyric acid was at a max. in the early stage of the biotransformation; for example, at 4.degree. the max. detectable ee was 100% when the yield was 11%.

L7 ANSWER 4 OF 9 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.DUPLICATE 2
ACCESSION NUMBER: 93168980 EMBASE
DOCUMENT NUMBER: 1993168980
TITLE: Asymmetric hydrolysis of a disubstituted malononitrile by the aid of a microorganism.
AUTHOR: Yokoyama M.; Sugai T.; Ohta H.
CORPORATE SOURCE: Department of Chemistry, Keio University, Hiyoshi 3-14-1,Yokohama 223, Japan
SOURCE: Tetrahedron Asymmetry, (1993) 4/6 (1081-1084).
ISSN: 0957-4166 CODEN: TASYE3
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB **Rhodococcus** rhodochrous ATCC 21197 hydrolyzed prochiral butylmethylmalononitrile to afford the corresponding amide-carboxylic acid with high enantiomeric excess. The reaction proceeds via the hydration of the starting dinitrile by a nitrile hydratase and the subsequent **enantioselective** hydrolysis of the intermediate diamide by an **amidase**.

L7 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:292614 CAPLUS

DOCUMENT NUMBER: 120:292614
TITLE: N-terminal amino acid sequence mutant strain Brevibacterium sp. adipamidase
AUTHOR(S): Azza, S.; Moreau, J.L.; Chebrou, H.; Arnaud, A.; Galzy, P.
CORPORATE SOURCE: Ec. Natil. Super., Montpellier, 34060, Fr.
SOURCE: Antonie van Leeuwenhoek (**1993**), 64(1), 35-8
CODEN: ALJMAO; ISSN: 0003-6072
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The adipamidase of a mutant strain Brevibacterium sp. R312 involved in the degrdn. of adiponitrile to adipic acid was purified. Its N-terminal amino acid sequence was shown to be identical to Brevibacterium sp. R312 enantio-selective **amidase** and **Rhodococcus** sp. N-774 **amidase**.

L7 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:212994 CAPLUS
DOCUMENT NUMBER: 116:212994
TITLE: Manufacture of chiral 2-aryl-alkanoic acids by microbial hydrolysis of amides
INVENTOR(S): Stieglitz, Barry; Linn, William J.; Jobst, Wolfram; Fried, Karen M.; Fallon, Robert D.; Ingvorsen, Kjeld; Yde, Birgitte
PATENT ASSIGNEE(S): Novo-Nordisk A/S, Den.; du Pont de Nemours, E. I., and Co.
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 9201062	A1	19920123	WO 1991-DK189	19910704	<--
W: AU, BB, BG, BR, CA, CS, FI, HU, JP, KP, KR, LK, MC, MG, MW, NO, PL, RO, SD, SU, US					
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GN, GR, IT, LU, ML, MR, NL, SE, SN, TD, TG					
CA 2086236	AA	19920106	CA 1991-2086236	19910704	<--
AU 9182040	A1	19920204	AU 1991-82040	19910704	<--
EP 537259	A1	19930421	EP 1991-912786	19910704	<--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE					
JP 05507625	T2	19931104	JP 1991-511976	19910704	<--
PRIORITY APPLN. INFO.:			DK 1990-1616	19900705	
			WO 1991-DK189	19910704	

OTHER SOURCE(S): MARPAT 116:212994
AB Chiral acids XCR1R2CO2H (X=Ph,naphthyl; R1=OH,NH2,alkyl; R2=H,alkyl) are produced by **enantioselective** hydrolysis of R,S-amides with **amidase**-contg. **Rhodococcus**, Serratia, Moraxella, or Pseudomonas. R,S-2-(4-Chlorophenyl)-3-methylbutyramide 29.8 .mu.mol in DMSO was added to dried immobilized R. erythropolis in phosphate buffer and the mixt. was incubated at 50.degree. for 48 h. The products were extd. from the acidified reaction mixt. R-Amide 12.5 .mu.mol (100% ee) and S-acid 11.8 .mu.mol (100% ee) were produced.

L7 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:146285 CAPLUS
DOCUMENT NUMBER: 118:146285
TITLE: Enzymic preparation of ammonium adipate
INVENTOR(S): Yeh, Patrice; Mayaux, Jean Francois; Cerbelaud, Edith;

Petre, Dominique
PATENT ASSIGNEE(S): Rhone-Poulenc Chimie, Fr.
SOURCE: Eur. Pat. Appl., 39 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
EP 488916	A1	19920603	EP 1991-420422	19911128	<--
EP 488916	B1	19970115			
R: BE, DE, ES, FR, GB, IT, NL					
FR 2669643	A1	19920529	FR 1990-14853	19901128	<--
FR 2669643	B1	19950428			
US 5258292	A	19931102	US 1991-796361	19911122	<--
CA 2056326	AA	19920529	CA 1991-2056326	19911127	<--
JP 06181786	A2	19940705	JP 1991-339705	19911128	<--

PRIORITY APPLN. INFO.: FR 1990-14853 19901128

AB Ammonium adipate for use in the prepn. of adipate for polyamide is manufd.
by hydrolysis of adipamide or ammonium adipamate with a microorganism or the hydrolase obtained from that microorganism. An **enantioselective** amidase from Brevibacterium R312 is the preferred enzyme. The enzyme was purified chromatog. from lysates of Brevibacterium
R312 by std. chromatog. methods using hydrolysis of (hydroxy-4-phenoxy)-2-
propionamide to assay for the enzyme. The gene was cloned as a PstI fragment using amino acid sequence-derived clones to screen and the gene was expressed from the trp operon promoter. A comparable enzyme from Rhodococcus was also purified and the gene also cloned and expressed in coryneforms.

L7 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:576715 CAPLUS
DOCUMENT NUMBER: 115:176715
TITLE: Cloning and expression of genes for **enantioselective amidases** of Brevibacterium or **Rhodococcus**
INVENTOR(S): Petre, Dominique; Cerbelaud, Edith; Mayaux, Jean Francois; Yeh, Patrice
PATENT ASSIGNEE(S): Rhone-Poulenc Sante, Fr.
SOURCE: Eur. Pat. Appl., 36 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
EP 433117	A1	19910619	EP 1990-403232	19901115	<--
EP 433117	B1	19970502			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE					
FR 2655660	A1	19910614	FR 1989-16332	19891211	<--
FR 2655660	B1	19920320			
ZA 9009071	A	19910925	ZA 1990-9071	19901113	<--
AU 9066614	A1	19910613	AU 1990-66614	19901114	<--
AU 631696	B2	19921203			
US 5260208	A	19931109	US 1990-612673	19901114	<--
CA 2030073	AA	19910612	CA 1990-2030073	19901115	<--
FI 9005660	A	19910612	FI 1990-5660	19901115	<--
CN 1052508	A	19910626	CN 1990-110047	19901115	<--
HU 56138	A2	19910729	HU 1990-7151	19901115	<--

JP 04218379	A2	19920807	JP 1990-310159	19901115	<--
JP 3150335		20010326			
AT 152481		19970515	AT 1990-403232	19901115	
ES 2104596	T3	19971016	ES 1990-403232	19901115	
US 5766918	A	19980616	US 1995-539666	19951005	

PRIORITY APPLN. INFO.:
FR 1989-16332 A 19891211
US 1990-612673 A3 19901114
US 1993-97009 B1 19930727

AB Genes for **enantioselective amidases** for use in the manuf. of pharmaceuticals are cloned from Brevibacterium and **Rhodococcus** and expressed in Escherichia coli. The enzyme was purified from Brevibacterium R312 by std. methods using **enantioselective** hydrolysis of (R,S)-2-(4-hydroxy-phenoxy)propionamide (I) as assay. Sequence-derived oligonucleotide probes were used in the cloning of the gene as a 5.4 kilobase PstI fragment. The gene was expressed in E. coli using strong promoters (e.g. Plac or the trp operon promoter). Specific activity of the enzyme when expressed from the trp promoter reached 1300 .mu.mol I hydrolyzed/h/g protein. Enantiomeric excess of the R-(+) acid product was 93%. The enzyme was also active against 2-phenyl-propionamide and ketoprofenamide.

L7 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:6077 CAPLUS
DOCUMENT NUMBER: 112:6077
TITLE: Manufacture of **optically active** amino acids from amino acid amides with bacteria producing an amidase.
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AB **Optically active** amino acids are manufd. from amino

acid amides (I) with microorganisms, e.g. **Rhodococcus** or Pseudomonas, that have an amino acid racemase (II) and/or **amidase** (III) activity. P. putida NCIB 40042 was cultured in the absence of D-I. The cells were harvested by ultrafiltration and centrifugation, washed, and freeze-dried. The cells were then incubated with a DL-phenylglycine amide soln., pH 8.6, at 40.degree.. Cells 200 mg at enzyme/substrate ratio of 2:1 and a reaction time of 24-72 h converted 65-80% racemic I substrate into L-phenylglycine without the formation of D-phenylglycine.